

PATENT

Attorney Docket No. 47508.514

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Agrawal et al.

Serial No.: 09/825,489 Examiner: Not Yet Assigned

Filed: April 3, 2001 Group Art Unit:

For: SENSITIZATION OF CELLS TO CYTOXIC AGENTS USING
OLIGONUCLEOTIDES DIRECTED TO NUCLEOTIDE EXCISION
REPAIR OR TRANSCRIPTION COUPLED REPAIR GENES

Assistant Commissioner for Patents
Washington, D.C. 20231

CERTIFICATE UNDER 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on the date set forth below.

9/10/01
Date

Melanie Legare
Melanie Legare

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicants and their attorney are aware of the following publications and information listed on the attached PTO Form 1449, and in accordance with 37 CFR §1.97 hereby submit these publications for the Examiner's consideration.

This submission does not represent that a search has been made and does not constitute an admission that the listed documents are material to patentability or that the listed documents are prior art. If it should be determined that any of the listed documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

U.S.S.N. 09/825,489

Agrawal et al.

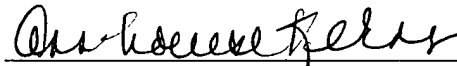
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This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits and is therefore submitted as both timely and proper; therefore, no fees are believed to be due.

The Commissioner, however, is hereby authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. 08-0219.

Respectfully submitted,

Date: Sept 10, 2001

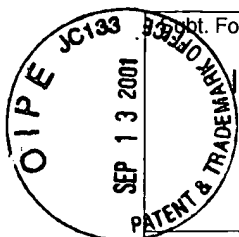


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U.S. Patent Form PTO-1449

INFORMATION DISCLOSURE
IN AN APPLICATION

(Use several sheets if necessary)

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U.S. Patent Documents

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,235,871	11/25/80	Papahadjopoulos et al.	424	19	
	4,501,728	02/26/85	Geho et al.	424	38	
	4,737,323	04/12/88	Martin et al.	264	4.3	
	4,837,028	06/06/89	Allen	424	450	
	5,149,798	09/22/92	Agrawal et al.	536	27	
	5,366,878	11/22/94	Pederson et al.	435	91.3	
	5,635,377	06/03/97	Pederson et al.	435	91.3	
	5,652,355	07/29/97	Meteliev et al.	536	24.5	
	5,652,356	07/29/97	Agrawal	536	245	

Foreign Patent Documents

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

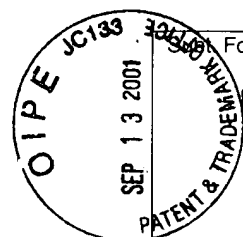
Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)

	A1	Chan et al. (1981) "Cross-Sensitivity of Certain Xeroderma Pigmentosum and Cockayne Syndrome Fibroblast Strains to Both Ionizing Radiation and Ultraviolet Light," <i>Mol. Gen. Genet.</i> 181:562-563
	A2	Deschavanne et al. (1984) "Abnormal Sensitivity of Some Cockayne's Syndrome Cell Strains to UV- and γ -Rays," <i>Mutat. Res.</i> 131:61-70
	A3	van Duin et al. (1986) "Molecular Characterization of the Human Excision Repair Gene ERCC-1: cDNA Cloning and Amino Acid Homology With The Yeast DNA Repair Gene RAD10," <i>Cell</i> 44:913-923
	A4	Froehler (1986) "Deoxynucleoside H-Phosphonate Diester Intermediates in the Synthesis of Internucleotide Phosphate Analogues," <i>Tetrahedron Lett.</i> 27:5575-5578
	A5	Agrawal et al. (1987) "Oligodeoxynucleoside Methylphosphonates: Synthesis and Enzymatic Degradation," <i>Tetrahedron Lett.</i> 28(31):3539-3542
	A6	Caruthers et al. (1987) "Chemical Synthesis of Deoxyoligonucleotides by the Phosphoramidite Method," <i>Meth. Enzymol.</i> 154:287-313
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	A8	Eastman et al. (1988) "Enhanced DNA Repair as a Mechanism of Resistance to <i>cis</i> -Diamminedichloroplatinum (II)," <i>Biochem.</i> 27:4730-4734
	A9	Uhlmann et al. (1990) "Antisense Oligonucleotides: A New Therapeutic Principle," <i>Chem. Rev.</i> 90:543-584
	A10	Coverly et al. (1991) "Requirement for the Replication of Protein in Human DNA Excision Repair," <i>Nature</i> 349:538-541
	A11	Jones et al. (1991) "Gene-Specific Formation and Repair of Cisplatin Intrastrand Adducts and Interstrand Cross-Links in Chinese Hamster Ovary Cells," <i>J. Biol. Chem.</i> 266:7101-7107
	A12	Agrawal (1992) "Antisense Oligonucleotides as Antiviral Agents," <i>Trends. Biotechnol.</i> 10:152-158
	A13	Barnes et al. (1992) "Mutations in the DNA Ligase I Gene of an Individual With Immunodeficiencies and Cellular Hypersensitivity to DNA-Damaging Agents," <i>Cell</i> 69:495-503

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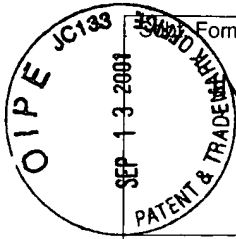
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✓	A14	Bergot et al. (1992) "Separation of Synthetic Phosphorothioate Oligodeoxynucleotides From Their Oxygenated (Phosphodiester) Defect Species by Strong-Anion-Exchange High-Performance Liquid Chromatography," <i>J. Chromatog.</i> 559:35-42
✓	A15	Troelstra et al. (1992) "ERCC6, A Member of a Subfamily of Putative Helicases, Is Involved in Cockayne's Syndrome and Preferential Repair of Active Genes," <i>Cell</i> 71:939-953
✓	A16	Zhen et al. (1992) "Increased Gene-Specific Repair of Cisplatin Interstrand Cross-Links in Cisplatin-Resistant Human Ovarian Cancer Cell Lines," <i>Mol. Cell Biol.</i> 12:3689-3698
✓	A17	Leadon et al. (1993) "Preferential Repair of Ionizing Radiation-Induced Damage in the Transcribed Strand of an Active Human Gene is Defective in Cockayne Syndrome," <i>Proc. Natl. Acad. Sci. USA</i> 90:10499-10503
✓	A18	Pon (1993) "Solid-Phase Supports for Oligonucleotide Synthesis," <i>Meth. Mol. Biol.</i> 20:465-496
✓	A19	Arteaga et al. (1994) "p185, ^{c-erbB-2} Signaling Enhances Cisplatin-Induced Cytotoxicity in Human Breast Carcinoma Cells: Association Between an Oncogenic Receptor Tyrosine Kinase and Drug-Induced DNA Repair," <i>Can. Res.</i> 54:3758-3765
✓	A20	Chao (1994) "Enhanced Excision Repair of DNA Damage Due to <i>cis</i> -diamminedichloroplatinum (II) in Resistant Cervix Carcinoma HeLa Cells" <i>Eur. J. Pharmacol.</i> 268:347-355
✓	A21	Masutani et al. (1994) "Purification and Cloning of a Nucleotide Excision Repair Complex Involving the Xeroderma Pigmentosum Group C Protein and a Human Homologue of Yeast RAD23," <i>EMBO J.</i> 13:1831-1843
✓	A22	Pietras et al. (1994) "Antibody to HER-2/ <i>neu</i> Receptor Blocks DNA Repair After Cisplatin in Human Breast and Ovarian Cancer Cells," <i>Oncogene</i> 9:1829-1838
✓	A23	Prigent et al. (1994) "Aberrant DNA Repair and DNA Replication Due to an Inherited Enzymatic Defect in Human DNA Ligase I," <i>Mol. Cell Biol.</i> 14:310-317
✓	A24	Agrawal et al. (1995) "Modified Oligonucleotides As Therapeutic and Diagnostic Agents," <i>Curr. Opin. Biotechnol.</i> 6:12-19
✓	A25	Henning et al. (1995) "The Cockayne Syndrome Group A Gene Encodes a WD Repeat Protein That Interacts With CSB Protein and a Subunit of RNA Polymerase II TFIIF," <i>Cell</i> 82:555-564
✓	A26	Zeng-Rong et al. (1995) "Elevated DNA Repair Capacity is Associated With Intrinsic Resistance of Lung Cancer to Chemotherapy," <i>Can. Res.</i> 55:4760-4764
✓	A27	Zhao et al. (1995) "Use of Cyclodextrin and Its Derivatives as Carriers for Oligonucleotide Delivery," <i>Antisense Res. Dev.</i> 5:185-192
✓	A28	Smith et al. (1996) "Antisense GADD45 Expression Results in Decreased DNA Repair and Sensitizes Cells to u.v.-Irradiation or Cisplatin," <i>Oncogene</i> 13:2255-2263
✓	A29	States et al. (1996) "Enhanced XPA mRNA Levels in Cisplatin-Resistant Human Ovarian Cancer Are Not Associated With XPA Mutations or Gene Amplification," <i>Can. Lett.</i> 108:233-237
✓	A30	Chao (1996) "Cross-Resistance to <i>cis</i> -Diamminedichloroplatinum(II) Of A Multidrug-Resistant Lymphoma Cell Line Associated With Decreased Drug Accumulation and Enhanced DNA Repair," <i>Eur. J. Pharmacol.</i> 305:213-222
✓	A31	Budd et al. (1997) "The Roles of the Eukaryotic DNA Polymerases in DNA Repair Synthesis," <i>Mutat. Res.</i> 384:157-167
✓	A32	Hindges et al. (1997) "DNA Polymerase δ , an Essential Enzyme For DNA Transactions," <i>Biol. Chem.</i> 378:345-362
✓	A33	Jonsson et al. (1997) "Proliferating Cell Nuclear Antigen: More Than A Clamp for DNA Polymerases," <i>BioEssays</i> 19:967-975
✓	A34	Potapova et al. (1997) "The Jun Kinase/Stress-Activated Protein Kinase Pathway Functions to Regulate DNA Repair and Inhibition of the Pathway Sensitizes Tumor Cells to Cisplatin," <i>J. Biol. Chem.</i> 272:14041-14044
✓	A35	Wood (1997) "Nucleotide Excision Repair in Mammalian Cells," <i>J. Biol. Chem.</i> 272:23465-23468
✓	A36	Wood et al. (1997) "Which DNA Polymerases Are Used for DNA-Repair in Eukaryotes?" <i>Carcinogenesis</i> 18:605-610
✓	A37	Lokich et al. (1998) "Carboplatin versus Cisplatin in Solid Tumors: An Analysis of the Literature," <i>Ann. Oncol.</i> 9:13-21
✓	A38	Mullenders (1998) "Transcription Response and Nucleotide Excision Repair," <i>Mutat. Res.</i> 409:59-64
✓	A39	Perez (1998) "Cellular and Molecular Determinants of Cisplatin Resistance," <i>Eur. J. Can.</i> 34:1535-1542
✓	A40	Raymond et al. (1998) "Oxaliplatin: A Review of Preclinical and Clinical Studies," <i>Ann. Oncol.</i> 9:1053-1071
✓	A41	Ratner et al. (1998) "Ultraviolet Radiation-Induced Ubiquitination and Proteasomal Degradation of the Large Subunit of RNA Polymerase II," <i>J. Biolog. Chem.</i> 273:5184-5189

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